

What is Claimed is:

1. A commercial microwave oven comprising:

a main cabinet for enclosing and protecting various components, having air inlet holes;

5 a base frame under the main cabinet having a box form with an opened top and a front part with a plurality of air outlet holes;

a bottom plate on the base frame;

an inner case in a space above one side part of the bottom plate, the inner case having a cooking chamber formed therein;

10 a magnetron on a lower part of an outside of the inner case;

a transformer for regulating a voltage provided to the magnetron;

a waveguide on an underside of the bottom plate;

a fan in a rear of outside of the inner case; and

a flow guide for guiding air passed through the magnetron toward air outlet holes.

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2. The commercial microwave oven as claimed in claim 1, wherein the bottom plate has an opening adjacent to the air outlet holes.

3. The commercial microwave oven as claimed in claim 1, wherein the flow guide is  
20 provided between the magnetron and the air outlet holes.

4. The commercial microwave oven as claimed in claim 3, wherein the flow guide is formed of a thin plate having a lower part the more bent forward with a slope as it goes down

the farther.

5. The commercial microwave oven as claimed in claim 1, wherein the main cabinet includes;

5        an outer case forming a top and sides of the microwave oven,  
a front panel on a front part of the outer case, and  
a rear panel on a rear part of the outer case having air inlets.

6. The commercial microwave oven as claimed in claim 1, wherein the waveguide  
10      has one end in communication with a bottom of the inner case, and the other end in  
communication with the magnetron.

7. The commercial microwave oven as claimed in claim 1, further comprising a  
supporting frame having a bottom part fixed to the base frame, and a top part the transformer  
15      is mounted thereon.

8. The commercial microwave oven as claimed in claim 7, wherein the fan has a  
central part mounted at a height in the middle of a height of the magnetron and a height of the  
transformer.

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9. The commercial microwave oven as claimed in claim 1, wherein the inner case has  
inlet holes in a side surface adjacent to the magnetron.

10. The commercial microwave oven as claimed in claim 1, wherein the fan is an

axial fan.

11. A commercial microwave oven comprising:

a main cabinet for enclosing and protecting various components, having air inlet

5 holes;

a base frame under the main cabinet having a box form with an opened top and a front part with a plurality of air outlet holes;

a bottom plate on the base frame;

an inner case in a space above one side part of the bottom plate, the inner case having

10 a cooking chamber formed therein;

a magnetron on an upper part of an outside of the inner case;

a transformer for regulating a voltage provided to the magnetron;

a waveguide on a top of the inner case;

a fan in a rear of outside of the inner case; and

15 a flow guide for guiding air passed through the magnetron toward air outlet holes.

12. The commercial microwave oven as claimed in claim 11, wherein the bottom plate has an opening adjacent to the air outlet holes.

20 13. The commercial microwave oven as claimed in claim 11, wherein the flow guide is provided between the magnetron and the air outlet holes.

14. The commercial microwave oven as claimed in claim 13, wherein the flow guide is formed of a thin plate having a lower part the more bent forward with a slope as it goes

down the farther.

15. The commercial microwave oven as claimed in claim 11, wherein the main cabinet includes;

5        an outer case forming a top and sides of the microwave oven,  
a front panel on a front part of the outer case, and  
a rear panel on a rear part of the outer case having air inlets.

16. The commercial microwave oven as claimed in claim 1, wherein the waveguide  
10    has one end in communication with a top of the inner case, and the other end in  
communication with the magnetron.

17. The commercial microwave oven as claimed in claim 11, further comprising a  
supporting frame having a bottom part fixed to the base frame, and a top part the transformer  
15    is mounted thereon.

18. The commercial microwave oven as claimed in claim 17, wherein the fan has a  
central part mounted at a height in the middle of a height of the magnetron and a height of the  
transformer.

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19. The commercial microwave oven as claimed in claim 11, wherein the inner case  
has inlet holes in a side surface adjacent to the magnetron.

20. The commercial microwave oven as claimed in claim 11, wherein the fan is an

axial fan.

21. A commercial microwave oven comprising:

a main cabinet for enclosing and protecting various components, having air inlet

5 holes;

a base frame under the main cabinet having a box form with an opened top and a front part with a plurality of air outlet holes;

a bottom plate on the base frame;

10 an inner case in a space above one side part of the bottom plate, the inner case having a cooking chamber formed therein;

a first magnetron on an upper part of an outside of the inner case, and a second magnetron on a lower part of an outside of the inner case;

a transformer for regulating a voltage provided to the magnetrons;

15 a first waveguide on a top of the inner case, and a second waveguide on an underside of the inner case;

a fan in a rear of outside of the inner case; and

a flow guide for guiding air passed through the magnetrons toward air outlet holes.

22. The commercial microwave oven as claimed in claim 21, wherein the bottom  
20 plate has an opening adjacent to the air outlet holes.

23. The commercial microwave oven as claimed in claim 21, wherein the flow guide is provided between the magnetron and the air outlet holes.

24. The commercial microwave oven as claimed in claim 23, wherein the flow guide is formed of a thin plate having a lower part the more bent forward with a slope as it goes down the farther.

5           25. The commercial microwave oven as claimed in claim 21, wherein the main cabinet includes;

an outer case forming a top and sides of the microwave oven,  
a front panel on a front part of the outer case, and  
a rear panel on a rear part of the outer case having air inlets.

10           26. The commercial microwave oven as claimed in claim 1, wherein the first waveguide has one end in communication with a bottom of the inner case, and the other end in communication with the first magnetron, and the second waveguide has one end in communication with a top of the inner case, and the other end in communication with the  
15 second magnetron.

27. The commercial microwave oven as claimed in claim 11, further comprising a supporting frame having a bottom part fixed to the base frame, and a top part the transformer is mounted thereon.

20           28. The commercial microwave oven as claimed in claim 27, wherein the transformer is provided as one pair so as to be connected to respective magnetrons in side by side opposite to the fan.

29. The commercial microwave oven as claimed in claim 21, wherein the inner case has inlet holes in a side surface adjacent to the magnetron.

30. The commercial microwave oven as claimed in claim 21, wherein the fan is an  
5 axial fan.